

REMARKS

Applicants thank the Examiners, Ms. Vu and Mr. Hannaher, for their courtesy and assistance in advancing the prosecution of this application, during an interview conducted March 16, 2007. At the conclusion of the interview, as indicated in the Interview Summary (Paper No. 20070316), counsel and the Examiners concluded that the amendments discussed during the interview appear to overcome the applied prior art. By the foregoing amendment, Applicants have adopted the amendments as discussed, and accordingly, independent Claims 1 and 8, and therefore, all claims of record, are believed now to be allowable. The following is a summary of the matters which were discussed during the interview.

In response to the rejection of Claims 3-7 under 35 U.S.C. § 112, first paragraph, as set forth at page 2 of the Office Action, Applicants have amended the language of Claim 3 to recite that the corner cube comprises a reflective surface and a matte surface to form an effective surface “having a predetermined desired emissivity”. Accordingly, the issue previously raised, concerning the meaning of the phrase “emissivity of N%” and its relationship to the disclosure has been eliminated, and Applicant respectfully submits that Claim 3 (and therefore Claims 4-7) now fully satisfy the requirements of 35 U.S.C. § 112, first paragraph.

With regard to the prior art rejection based on Kato et al (U.S. Patent No. 5,602,389), Kaufman et al (U.S. Patent No. 6,476,392), Smith (U.S. Patent No. 4,933,555) and Karlsson et al (U.S. Patent No. 5,572,312), counsel pointed out that the purpose of the structure in Kato et al, including the provision of the cylindrical member 12, is to reduce reflectivity to approximately zero, as noted in the specification, for example, at Column 1, line 64 through Column 2, line 4. As noted at Column 2, lines 15-17, if this is done, such that the only radiation incident on the detector is emissive radiation from the black body 10, the intensity of the infrared rays emitted by the black body can easily be calculated, using equation (2). Accordingly, the Kato et al system calculates intensity of the infrared rays incident on the entry 11a to the infrared sensor 11, and uses the calculated values of the infrared radiation intensity to calibrate the infrared sensor. (See Column 3, lines 54-60; Column 4, lines 8-12 and 36-44.)

The Kaufman et al patent, on the other hand, discloses a method and apparatus for temperature compensation of an uncooled focal plane array in which variations in sensor output are compensated on a pixel-by-pixel basis by using a measured temperature of the sensor array to access a memory that stores gain and offset values for each pixel. (See Column 2, lines 2-15 and 60-62; Column 6, lines 57-67.) Kaufman et al does not indicate, however, how the stored gain and offset values are determined.

The Smith patent discloses a thermal imager in which two regions 5,6 are arranged adjacent to the image area (Figure 2) on a "field stop" 2. As indicated in Figure 5, the system scans the areas 5 and 6 at the end of a particular scan line, producing a scan signal which appears at the bottom of Figure 5. The values for the outputs for each detector element for the two reference regions 5 and 6 are then used to calibrate the system and allow for variations in the outputs.

Finally, the Karlsson et al reference has been cited as disclosing a thermal imager having a retroreflective region provided by a plurality of corner cube structures.

A deficiency which is common to each of the cited references is that none of them teaches or suggests a system in which an output signal generated by the infrared detector at a desired calibration temperature is compared with "a predetermined ideal output signal for said desired calibration temperature" nor do any of the references teach or suggest calculating a calibration coefficient based on the difference between the detector output signal and the ideal output signal at the desired calibration temperature. Accordingly, Applicant respectfully submits that Claims 1 and 8 as amended, and therefore all claims of record, distinguish over the cited references, whether considered separately or in combination.

In light of the foregoing remarks, this application should be in condition for allowance, and early passage of this case to issue is respectfully requested. If there are any questions regarding this amendment or the application in general, a telephone call to the undersigned would be appreciated since this should expedite the prosecution of the application for all concerned.

If necessary to effect a timely response, this paper should be considered as a petition for an Extension of Time sufficient to effect a timely response, and please charge any deficiency in fees or credit any overpayments to Deposit Account No. 05-1323 (Docket #102343.55259US).

Respectfully submitted,

A handwritten signature in cursive script, reading "Gary R. Edwards", is written over a horizontal line.

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